PITTSBURGH WOOL COMPANY
1230 River Avenue
Pittsburgh
Allegheny County
Pennsylvania

HAER No. PA-572

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

HISTORIC AMERICAN ENGINEERING RECORD
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HISTORIC AMERICAN ENGINEERING RECORD

PITTSBURGH WOOL COMPANY

HAER No. PA-572

Location:	1230 River Avenue, Pittsburgh, Allegheny County, Pennsylvania. Quad: USGS Pittsburgh East, Pa. UTM: 17/585980/4479080
Date of Construction:	1884
Builder:	James Callery.
Present Owner:	Pittsburgh Wool Company, Inc.
Present Use:	Industrial-Processing. Wool Pullery.
Significance:	Occupying a historic former tannery in a part of Pittsburgh, Pennsylvania once defined by the leather industry, the Pittsburgh Wool Company was the last operational wool pullery in the United States.
Historian:	David S. Rotenstein
Project Information:	The Pittsburgh Wool Company was documented to mitigate the impacts of proposed demolition by the City of Pittsburgh and H.J. Heinz Company to expand the latter's Pittsburgh facilities. In January 2000, the Historical Society of Western Pennsylvania executed agreements with David Rotenstein and the Historic American Engineering Record (HAER) to document the Pittsburgh Wool Company HAER standards. HAER historical architects Christopher Marston and Tom Behrens conducted fieldwork to produce measured drawings of Pittsburgh Wool's architecture and machinery and David Rotenstein prepared a history of the Pittsburgh Wool Company (and its site) and the HAER historical documentation.

CHRONOLOGY

1879	John Stratman founds the John H. Stratman Company
1884	Tanner James Callery builds a brick tannery on River Avenue (1230 River Avenue)
Ca. 1889	William P. "W.P." Lange goes to work as a bookkeeper for his uncle, John H. Stratman
1895	John H. Stratman dies; Lange takes over the business
1903	The Pennsylvania Railroad consolidates stockyards on Herr's Island; Lange buys the nearby former Holstein tannery, relocates the company, renamed W.P. Lange and Company. Charles B. Kumer goes to work for Lange in the company's office.
1907	Pittsburgh annexes Allegheny City
1912	Pittsburgh Wool Company incorporated
1918	Patrick McGraw buys Callery tannery (1230 River Avenue)
1932	Roy Kumer begins working at Pittsburgh Wool
1946	W.P. Lange dies. Leo F. Lange becomes president of Pittsburgh Wool
1954	Pittsburgh Wool buys the 1230 River Avenue
1958	Pittsburgh Wool moves to 1230 River Avenue; Charles B. Kumer dies
1968-69	Roy Kumer and Jeff Kumer acquire ownership of Pittsburgh Wool
1999	H.J. Heinz Company and the City of Pittsburgh begin the process to acquire Pittsburgh Wool by eminent domain to facilitate Heinz's expansion. Pittsburgh Wool agrees to sell the 1230 River Avenue site and relocate during 2000

Description

The Pittsburgh Wool Company is housed in a structure composed of a four-story rectangular two-part brick core – a four-story main tannery building and an attached two-story leach house wing (south) – with additions to the north, west, and southern exposures. The building fronts on River Avenue and extends back from the River Avenue sidewalk to the CSX railroad tracks. The historic core is built upon a stone and concrete foundation. The River Avenue façade has ten bays – seven in the tannery portion and three in the leach house wing – and extends back sixteen bays. The four-story tannery portion has a flat roof and the two-story leach house has a shed roof. The exterior is brick clad and there are metal tie-rods with star-shaped anchor plates. The window openings are segmental arches and the window lights have been replaced and filled with glass blocks and awning windows. The River Avenue façade retains the fading signage – painted on the exterior brick wall between the first and second stories – "Duquesne Tannery Jas. Callery and Company" and the northern and southern elevations are ornamented by a corbelled brick cornice.

Additions to the tannery and leach house wing include a metal fire escape attached to the River Avenue façade, wood-frame railroad sidings in the rear, and rectangular brick wings to the north and south. The wings have garage doors and are used as loading docks for incoming and outgoing freight. The southern/western wing was added prior to 1927 and the northern/eastern wing was added after 1927.[1] The northern/eastern wing was where the P. McGraw Wool Company scoured wool; the garage doors and loading dock were added after Pittsburgh Wool moved into the building.

Each of the floors in the four-story former tannery core performed specialized functions during the years the Pittsburgh Wool Company occupied the site. When the Company moved into the former Callery (and then McGraw) building, they filled-in wooden vats in the first story formerly used by McGraw and perhaps by the Callerys before 1918.[2] The first floor became Pittsburgh Wool Company's "wet department" with pelt washing vats and extractors occupying one division, the "paint room" where the depilatory was applied to pelts occupied another, pickle skin drums comprised the "pickle room" with an adjacent skin grading and sorting area. Other parts of the first story were used as a metal shop and workshop, boiler room, time clock, and the company's office. The second story was occupied by the pulling department, the wool dryer and its related blower system (including wool bins and cages), scales for weighing denuded skins and wool, and the wool bagging machine (later replaced by the bale press). The third and fourth stories were used to dry and store pelts.

[1] Sanborn Map Company, 1927.

[2] Roy Kumer, personal communication with the author, 7 August 1996.

First Floor

Pelt Washing Tubs

There are eight pelt washing tubs (vats) in which incoming pelts are cleaned prior to pulling. Two of the tubs were custom-built from cypress based on designs by Roy Kumer and the remaining tubs are poured concrete with plastic liners. The tubs have a parabolic shape, to facilitate the agitation of pelts. Each tub has an overhead gear-driven paddle wheel (reels) to agitate the pelts and water during the process. According to Jeff Kumer,

> My dad designed his own style of vat, which is a little more difficult than the type that are used, normally built. The normal vat is built like a half circle, like taking a barrel and cutting it through the center and laying it on its side so you have like a dish, but it's a constant radius. The ones that dad designed were more effective for the flow of the pelts when the reel was running and it's actually – a cross-section would look like a parabola. So they're much deeper and it allowed for more motion of the pelts to get the dirt out of it.[3]

Roy Kumer added, "Two things rolling around like barrels, you know, the skins over there in Harrington's place (or Swift's place), in the tub they just kind of rolled around and around and around and around. This way, by making the tank in the shape of a parabola, when they rolled around, they separated and got apart. That was the difference."[4] The washing tubs in the Pittsburgh Wool Company are located above the floor grade; historic photographs of wool pulleries in the 1920s illustrate more of a semi-subterranean vat type.[5]

The pelt washing vats receive water via pipes that draw water from the City of Pittsburgh water system and an underground river. The overhead paddle reels are gear-driven and are powered by electric motors.

Extractors

The Pittsburgh Wool Company used three extractors to dry pelts removed from the washing tubs. The extractors were high-speed centrifugal dryers powered by individual electric motors mounted on concrete pads attached to the floor. Jeff Kumer explained that the extractors

[3] Roy Kumer, personal communication with the author, 22 January 1997.

[4] Roy Kumer, personal communication.

[5] Rudolph Clemen, *Byproducts in the Packing Industry* (Chicago: University of Chicago Press, 1927), plate opposite p. 55.

were basically just "spin dryers" designed to remove excess water from the washed pelts. "It gets them damp dry, not completely dry dry, just damp dry," he said.[6] Kumer was unsure where the company obtained the extractors; he believed one originated in Germany.[7]

Paint Room

The paint room is located adjacent to the pelt washing tubs and is opposite an elevator leading to the upper floors. The paint room is composed of two metal depilatory tables and two kettles (metal drums) in which the depilatory is cooked prior to its application to the pelts. The kettles were heated by forced steam from the boiler. Sodium sulfide and lime were mixed into the hot water and stirred by a two-by-four paddle and the solution's density was checked by a Baumé meter kept hanging on a nearby upright beam. The depilatory tables were constructed from metal frames with a wire mesh grating upper surface. A metal trough bisected each table. The cooked depilatory was poured into the troughs; during painting, the depilatory would be applied to the pelt using a brush.

Pickle Skin Drums

Originally, the Pittsburgh Wool Company had six pickle skin drums, which the company acquired from the Swift Packing Company's New York City wool pullery. Of the six drums, four remain mounted to upright posts parallel to the interior south/west wall of the four-story tannery building. Each of the revolving drums is constructed of mahogany with bronze bolts and measures nine feet in diameter. The drums revolve forward and reverse and are powered by electric motors via belts (V-belts) attached to a central drive-shaft. Originally, the drums were gear driven. The gears were abandoned for belt drives to facilitate smoother starts and to cut noise in the plant. "I put in soft starts which are fluid couplings drives, " Explained Jeff Kumer. "So when you'd start it up, the motor would come up to speed and start the drums slowly."[8] The interiors of the drums are lined with wooden pegs to lift the skins off the drums walls and agitate them.[9]

Chemicals and water enter the drums via hub connections; skins and salt are introduced via hatches in the second floor. The skins and salt fall through chutes into the square drum door after it is rotated and aligned with the chute. Jeff Kumer explained how the drums were filled and operated:

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[6] Jeff Kumer, personal communication with the author, 22 January, 1997.

[7] Jeff Kumer, personal communication with the author, 23 February, 2000.

[8] Jeff Kumer, personal communication.

[9] Roy Kumer, personal communication.

> They're loaded – see the chutes that are up on the top – the opening . . . see the boards up . . . that actually comes out [square cover that fits into side of drum]. Take that out and you position, skins are dropped in. You already have it half full of treated chemicals to start the pickling process . . . and then you rotate the drum down and put that head in and start it turning over. And, for positioning reasons, you want it to go both directions. Normally, you only process going one direction.
>
> When you want to test it or add salt or lime like this [points to bags of lime stacked on a pallet], the door's brought down and it faces straight out like the one that's opened down there. And you go up this ladder and throw it in. Once you close that door and it's rotating – everything – water comes in through the water line here, goes in through the hub on this side [the right side as you face the drum] and when you want to add chemicals, you put a . . . hose while it's rotating. That get the straight mix, you don't get any burns, it makes things very consistent as it slowly mixes in rather than to open the door and pour it in and then have a concentration of it until you get it going again. This way it's going all the time.[10]

The drums accomplish several tasks. Comparable to drums used to tan leather, the drums used by Pittsburgh Wool wash, bate and pickle pulled sheepskins. Installation of the drums increased the plant's efficiency over their previous location, as Jeff Kumer detailed in 1997:

> [W]e have these big revolving drums that you put the skins in there and as they revolve, you pump the chemicals into the hub and wash them and the whole process is done in there and they come out finished, instead of doing all this sequential stuff. It's all done in one drum, then it's dumped out as a batch. So, it not only reduced the labor in the process, but drums doing that are much more efficient and effective. The reason being is you could imagine these thin – chamois skins – they tend to coagulate in a lump at the bottom of those tubs, even though the reel is going up there, six feet above it, and they can settle down there. And, you don't agitate all the time. You'll agitate them with the reel and then you'll shut it off and let the chemical penetrate. Well, when they sit, they tend to settle in a lump and then, of course, your chemicals don't work as effectively. But in those revolving drums, the whole process, instead of going for several days – or maybe a day and a half – is taken care of in a period of one eight hour day. And, it's continually rotating, so the skins are always moving, always agitated in there and continually flowing through the chemicals as they're added and then you wash them out and then you add others and then you wash them out. So it's a much more effective, complete – you expose all of the skin as opposed to having them pile up and sometimes you get areas that . . . it's a much better way of doing it.[11]

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[10] Jeff Kumer, personal communication.

[11] Jeff Kumer, personal communication.

Once the skins have been pickled in the drum, the drums are emptied into rolling wooden boxes (perforated plywood, metal frame and metal wheels). The boxes then were moved to the skin sorting area adjacent to the pickle skin drums where the skins were removed from the boxes, draped over a beam – called a "buck" – trimmed, and graded. The skins were then placed, by grade, on beams (two-by-fours on saw horses) forming a rectangular area. Once the skins were graded and sorted, they were bundled into dozens for shipment to tanneries.

Second Floor

Pulling Stations

Pittsburgh Wool's wool pulling stations were distributed in a line parallel to the plant's southern/western wall. Situated to receive the maximum light from opposite windows, there were eight pulling beams – six on one side of the wool dryer and two on the other. Each pulling station was comprised of an angled wooden beam – each beam's height was adjustable according to the puller's height – and was surrounded by portable canvas boxes into which the pulled wool was placed. The pulling beams were similar in size and construction to those used in tanneries for beam work: the removal of flesh and hair from beef hides.

The pulling beam formed the focal point of each pulling station. As the puller removed the wool from each pelt, the wool was placed in separate canvas boxes according to its grade. Although the pelts went through a preliminary sort downstairs prior to painting, the pullers were responsible for sorting the various grades of wool found on individual pelts. As the puller worked through a batch of pelts – each of which was brought to the pulling station on rolling racks designed by Roy Kumer – the filled canvas boxes were replaced with empty ones and taken to the wool dryer by employees called "wool dodgers." The denuded skins were placed on flatbed carts and when a cart was filled, it was wheeled to a scale, weighed, and the skins were dropped through the hatches in the floor into pickle skin drums below.

"This is what makes it all hand work," explained Jeff Kumer.

> The racks would be lined up behind the man here [motions to a beam]. So each guy would get about 250 pelts, lined behind – five of those racks [the ones on wheels that each holds fifty pelts].
>
> The first one, we'd give him the coarse grade wool, maybe, or all fine grade, didn't make any difference, just as long as he did it in an organized fashion. These boxes [canvas boxes, about 3 feet high] are lined up all around you, all the way back, about eight of them. And each one of these beams, the beams are adjusted to the size of the person working. And the fellow stands here, he wears an apron and protective gloves. Now the skin, he lifts it off the rack, opens it up, puts it wool side up, with half the skin this way and the other half kind of hanging down. And now, this is the next morning – they start

> at six in the morning. And he sorts out – all you do is just push your hand over it and the wool comes right off. So he'd push his hand down here and take off the gray wools or the stained wools and he'd put them in one box and the gray in another box. And then the best wool down the side, the middle of the back, take that off and put it in another box. If he had fine wools on the same skin, he'd take them off and put it in another box. So he'd be sorting the various grades of wool. And when he's got this half of the skin done [nearest the top of the beam], he picks it up and throws it down and does the other half of the skin.[12]

Each puller adapted the pulling station to fit individual needs. Upright beams adjacent to the pulling beams had nails driven into them to hold tools and other items used during the workday. The pullers also attached sticks or paddles to the structural beams on which they hung their rubber gloves to dry and other personal effects. Aprons and other protective gear were hung on the wall opposite the pulling stations. Boards placed across the tops of canvas wool boxes and barrel tops were used to store clippers, trimming knives, sharpening stones, and other tools.

Wool Dryer

The wool dryer dominates much of Pittsburgh Wool's second floor. Oriented perpendicular to the wool pulling stations, the dryer extends across the floor, measuring ca. forty feet by eight feet. Purchased from the former Swift Packing Company in New York City, the dryer was manufactured by C. G. Sargent's Sons, a woolen mill machinery manufacturer located in Graniteville, Massachusetts. Founded in 1855 by Charles G. Sargent, the company rapidly became a prime supplier of woolen mill machinery, including scouring machines and other specialized equipment.[13] The Sargent wool dryer replaced two wool dryers the company had in its previous location.

The wool dryer was powered by twelve electric motors and was heated by steam from the first-floor boiler. According to Jeff Kumer,

> The object of a wool dryer and the conveyor system the way it is, is to get an even thickness of wool so it doesn't dry completely. So you throw it in the hopper. This belt slowly moves back towards the spike belt. The spike belt, obviously, lifts a layer as it goes up, with the wool with it. This comb, here, what it does is make that even thickness going across [points to comb mounted in hopper, near spike belt, which travels vertically from bottom upwards to the top] it beats up and down and combs the wool back into the hopper so that what goes over the top is a very uniform thickness.
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> As it goes over the top, there's a beater back here that revolves with brushes on it, It

[12] Jeff Kumer.

[13] Arthur H. Cole, *The American Wool Manufacture* (Cambridge, Massachusetts: Harvard University Press, 1926), 366.

> knocks it off, the wool drops down here in kind of a steady snowfall layer and lands on – this is the conveyor and proceeds through the dryer. All the speeds are regulated so you get this nice even layer as it moves through. [He opens up a side door] And these are all the heat tubes. Then down underneath it here, on the other side, is all those blowers. Those fans circulate all the hot air through. It get real hot, about 150, 160 degrees. The doors are all insulated. It's pretty intensely hot in there.[14]

The wool dryer was the first stage in a conveyance system that transported wool between the pulling stations and the baling machine. Once the wool was dry and it emerged in the output hopper, it was blown through a system of overhead conduits into bins – rooms encased by wire mesh – and, later, rolling wire mesh cages. The wool was sent through this system by individual grades. Once the cages were full, they were wheeled to the bale press. Pittsburgh Wool installed what is known as an "upstroke" bale press:

> There's two different kinds: an upstroke and a downstroke. The downstroke, you end up with a bale at the bottom of the press. An upstroke, the bale ends up on this floor [second]. It's because the platen that does the squeezing, goes down to the bottom of the first floor and you fill the press with wool out of the bin. Or you bring the cage over here, pull it out of the cage, throw it down in this hopper with the platen all the way down. And you put burlap on first, you know, cover, on the bottom. You fill it with wool, pack it down – and actually, we do it twice – we make a huge bale. You close these two doors here, then it presses it up. Then we send it back down, open this door, one door, and throw in more wool. And then close the door and put burlap sheets in between the gap between this and this here [top of the press]. So then you put the burlap sheet in there, then you press it up between that. Then you can open both doors and the bale is pressed between about here and here [gestures to the top of the press and the floor level]. Then you pull the burlap down, sew it, so it holds it, then you run your straps through all these holes – of course the platen on the bottom has corresponding holes. You put your wire on it, then you just release it and it expands into the wires and you roll it out on a truck.[15]

Historical Information

For more than a century, the shipping, sale, and slaughtering of meat animals and allied processing industries supported a complex economic and social community of drovers, butchers, tanners, glue makers, chandlers, and wool pullers in the Pittsburgh region, especially in the former Allegheny City. The vertical integration strategies employed by the butchers and tanners who lived in Pittsburgh and Allegheny City during the nineteenth century created multiple layers

[14] Jeff Kumer, personal communication.

[15] Jeff Kumer, personal communication.

of an economic and social fabric bound by blood, marriage, ethnicity, and religion. The Pittsburgh Wool Company was one of many entrepreneurial enterprises within Pittsburgh's meat and byproducts processing industry and it was its only surviving remnant. Founded in 1879 by John Stratman, a young entrepreneur who lived in a community defined by butchers and tanners, the company evolved from a meat byproducts brokerage into a byproducts processor precariously perched between the well-defined leather and textile industries.

Wool Pulling and the Leather and Textile Industries

The leather tanning industry, which itself is a second-stage processing satellite of the larger slaughtering and meatpacking industry (first-stage processors), historically created byproducts that required additional processing prior to manufacturing.[16] Byproducts in the slaughtering and meatpacking industries were comprised of "everything of value produced on the killing floor other than dressed meat."[17] Meat byproducts are classified into two classes: edible and inedible. Hides and skins, along with grease, horns, bones and glands comprised the bulk of inedible byproducts, which varied in meat animals from 10.3 percent (live weight) of the animal in cattle to 17.6 percent in lambs. Lambs historically provided the highest byproduct return to slaughterers because lamb pelts yield wool and leather, two valuable commodities.[18] From the slaughterhouse, hides and skins entered tanneries with hair (wool) and fat, and sometimes bone, which had to be removed before the tanning process could begin. Nineteenth century tanners increased their profits by selling these byproducts to a wide array of processors and manufacturers. Rendering plants, glue factories, blanket makers and furniture makers were recipients of "tannery refuse" not realized by the slaughterers.[19]

The skins or pelts from domestic sheep, *Ovis aries*, differ from their bovine counterparts in several respects. Unlike beeves, which yield hides, the pelts from sheep are known as skins.

Tanners and those in the meat industry use a specialized classification system for pelts. Hides provided the raw material for heavy leathers (sole leather, harness leather and machinery belts) whereas skins were used for a diverse array of products (shoe uppers, gloves, travel bags and even the sheathing for prosthetic limbs). This basic classification system for distinguishing

[16] Margaret Walsh, *The Manufacturing Frontier: Pioneer Industry in Antebellum Wisconsin, 1830-1860* (Madison, Wisconsin, 1972). ix.

[17] Clemen, *Byproducts*, 8.

[18] Stewart H. Fowler, *The Marketing of Livestock and Meat* (Danville, Illinois: Interstate Printers and Publishers 1969), 682 - 689.

[19] Jackson S. Schultz, *The Leather Manufacture in the United States: A Dissertation on the Methods and Economies of Tanning* (New York: The Shoe and Leather Reporter, 1876), 146-154.

between hides and skins also was the basis for the division of the leather industry in Post-Medieval Europe between the heavy leather tanners and the light leather tanners.[20]

Before the sheepskin may be tanned, its hair (wool) must be removed. The process by which the wool is removed from a sheepskin is known as "pulling."[21] The craft of wool pulling emerged in Post-Medieval Europe, notably in Great Britain, as guild limitations on middlemen were eased during the sixteenth century.[22] Wool pullers first were labeled "fellmongers" (craftsmen aligned closely with textile industry middlemen distinct from sheepskin tanners) in Great Britain because they derived their wool from fells, an Old English term for skins, rather than fleeces.[23] By the middle of the seventeenth century, fellmongers dealing only with fellswool (as opposed to fleece wool [shorn wool]) were documented in the English towns of Southwark, Oxford, Buckingham, Gainsborough and Hungerford.[24] Like tanners, British fellmongers purchased skins from butchers and they, in turn, sold the dewooled sheepskins to whitawyers and tanners.[25] The intermediary processing position between the butcher and the tanner was supported because the wool pulled from sheepskins might be worth in excess of four or five times the value of the skin.[26] Sheep pelts vary widely because of differing wool and skin characteristics and competency among fellmongers lay in having "an intimate knowledge [of wool and skins], sorting and grading accordingly."[27]

Tanned sheepskins and lambskins (the former from mature sheep raised for shorn wool and mutton and the latter which were slaughtered at ca. twelve months) provided the raw material for a wide array of products. Ovid skins may be divided into five leather classes: shoe leathers (uppers and linings, facings and stays), glove leathers, bag and case leathers, fancy

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[20] L.A. Clarkson, "The Organization of the English Leather Industry in the late Sixteenth and Seventeenth Centuries," *Economic History Review* (13, 2), 245-256; Roy Thomson, "Leather Manufacture in the Post-Medieval Period with Special Reference to Northamptonshire," *Post-Medieval Archaeology* (15), 161-175.

[21] John R. Arnold, *Hides and Skins* (Chicago: A.W. Shaw Company, 1925), 359.

[22] Peter J. Bowden, *The Wool Trade in Tudor and Stuart England* (London: Macmillan & Co., 1962), 80-83; Thomson, "Leather Manufacture," 170.

[23] Arnold, *Hides*, 359.

[24] Bowden, *Wool Trade*, 83.

[25] Michael Shaw, "The Excavation of a Late 15th – to 17th Century Tanning Complex at The Green, Northampton." *Post-Medieval Archaeology (30),* 63-127; John W. Waterer, *Leather in Life, Art and Industry* (London: Faber and Faber, ltd., 1952), 134.

[26] Arnold, *Hides.*

[27] Waterer, *Leather*, 134.

leathers and specialty leathers (apron, chamois, hat sweat bands, parchment, etc.)[28] Most sheepskin leather, which is thin, was tanned unsplit. Throughout the nineteenth and early twentieth century, vegetable tanning was the dominant method used to transform sheepskins into leather, however, alum tawing persisted in the making of glove leathers and chrome tanning processes were employed in making some shoe leathers.[29]

Both shorn and pulled wool are subject to complex classifications based on the wool's physical characteristics and its potential uses. Wool produced by shearing live sheep is known as "shorn wool," whereas pulled wool "is the term applied to wool that has been removed from the pelts of animals slaughtered largely in the packing houses."[30] Additionally, wool may be pulled from the carcasses of sheep that died on the range or farm, however this type of wool – called "dead wool" or "murrain wool" – is of a lesser quality.[31]

There are three basic types of wool – categories derived on the basis of fiber length and the wool use: combing, clothing and carpet wools. Longer wool staples, which were easier to manipulate, were combed and the fibers twisted into yarns while shorter wools generally were carded.[32] Wool removed from the pelts of slaughtered sheep and lambs was graded by breed, age at slaughter, and staple length or spinning counts.[33] The staple length in pulled wools is "governed principally by the length of time which has elapsed between shearing and slaughtering."[34] Pulled wool may be used in a wide array of textile products, including bed blankets, carpets, woven paper, mill felts, flannels and dress goods.[35]

Existing histories of the leather industry in the United States fail to cogently articulate the processes by which New World tanners reinvented themselves and their craft from Old World antecedents.[36] In the former Allegheny City and elsewhere, the surviving data on nineteenth century sheepskin tanners indicate that tanning and wool pulling were somehow reintegrated,

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[28] Arnold, *Hides*, Table II.

[29] Arnold, *Hides*, 345-418.

[30] Werner von Bergen and Herbert R. Mauersberger, *American Wool Handbook: A Practical Text and Reference Book* (New York: Textile Book Publishers, 1948), 372.

[31] Alston Hill Garside, *Wool and the Wool Trade* (New York: Frederick A. Stokes Co., 1939), 4.

[32] Clemen, *Byproducts*, 52-53.

[33] Arnold, *Hides*, 345-418; Clemen, *Byproducts*, 51-54.

[34] Clemen, *Byproducts*, 58.

[35] Clemen, *Byproducts*, 60.

[36] Ellsworth, *Craft to National Industry*, 1975; Welsh, Peter, *Tanning in the United States to 1850: A Brief History* (Washington, DC: Smithsonian Institution, 1964).

briefly, before a class of distinct fellmongers appeared in the United States during the decades following the Civil War. According to the U.S. Census, sheepskins were the dominant raw material tanned by Allegheny City tanners in 1850 (69%, N=27,400); two decades would pass before beeves would supplant sheep as the dominant local hide/skin supply. By the last decades of the nineteenth century, Allegheny City's leather industry would be defined by its production of heavy harness leather, belting leather and sole leather.[37] Of the ten tanners active in 1850 and documented by the U.S. Census, all but two tanned sheepskins. Furthermore, of the tanners documented by the Census, fifty percent were German immigrants, and the remainder were native Pennsylvanians and immigrants from Great Britain.

The 1860 manufacturing census reported four Allegheny City tanners with sheepskins as the dominant raw skin material out of twenty-four total tanners (sixteen percent). Although Samuel Hasely (Hoesli), James Watson, Thomas Curran and Frederick Weckerle had been identified as "tanners," their chief output (except for Hasely) in gross values was wool, not leather (Table 1). In addition to their products, the sheepskin tanners identified in the 1860 census differed from their Allegheny City counterparts in several other significant respects. One point of departure is the amount of capital invested in each establishment. The capital invested in Allegheny City sheepskin tanneries ranged from $300 to$2,300 (median $1,000 and mean $1,200). The upper range of capital invested in the entire population of Allegheny City tanneries was $35,000 with a total population mean of $9,158 (median $5,250). Furthermore, while many of the heavy leather tanners had adopted hydraulic power for their bark mills and machinery, the sheepskin tanners relied strictly on manual labor, employing only one or two persons.

[37] *Shoe and Leather Reporter*, 1893.

TABLE 1

Allegheny City Sheepskin Tanners 1860

Tanner	Capital	Raw Materials No.	Type	Value	Products No.	Type	Value
Samuel Hasely	$2,300	9600	sheep skins	$4,800	9600	sheep skins	$2,000
					26000	wool	$7,800
		288	calf skins	$240	288	calfskins	$48
James Watson	$300	1800	sheep skins	$400	1800	sheep skins	$450
Thomas Curran	$300	6000	sheep skins	$1,800	6000	sheep skins	$1,500
						wool	$7,500
Frederick Weckerle	$1,000	300	beef hides	$1,200	600	sides harness	$2,400
		12000	sheep skins	$3,600	12000	sheep skins	$3,000
					15000	lbs. wool	$3,800

Source: U.S. Census. Manuscript Manufacturing Schedules 1860. Allegheny City, Reserve Township and Duquesne Borough, Pennsylvania.

The distinction between heavy leather tanners, light leather tanners and wool pullers has not been made by economic historians who have examined nineteenth century industrialization trends within the hide and skins trades. By viewing nineteenth century leather tanning as a monolithic industry without accounting for specialization or segmentation, historians such as Jeremy Atack and Kenneth Sokoloff constructed skewed models for the industrialization of tanning based on firm size and motive power.[38] Although this analytical approach is viable for some mass production industries, the analysis of leather making by focusing on economies of scale and throughput fails to account for industry-specific diversity and individual adaptation to fluctuating markets and supply sources.[39] Sheepskin tanning and wool pulling developed parallel

[38] Jeremy Atack, "Industrial Structure and the Emergence of the Modern Industrial Corporation," *Explorotions in Economic History* (22), 29-52; "Firm Size and Industrial Structure in the United States During the Nineteenth Century," *Journol of Economic History* 46 (2), 463-475; Kenneth Sokolof, "Was the Transformation from the Artisanal Shop to the Nonmechanized Factory Associated with Gains in Efficiency: Evidence from the U.S. Manufacturing Censuses of 1820 and 1850," *Explorations in Economic History* (21), 351-382.

[39] Philip Scranton, *Endless Novelty: Speciolty Production and American Industrialization, 1865-1925* (Princeton, New Jersey: Princeton University Press, 1997), 3-24.

to heavy leather tanning, but the crafts (because of their low labor and low power requirements) never broke out of the traditional entrepreneurial production stage.

Pulled wool never comprised more than a quarter of the total wool product in the United States. Data collected by the U.S. Department of Agriculture and the Wool Bureau, Inc. (Great Britain) indicate that pulled wool comprised between 10.2 percent and 23.9 percent of domestic wool production between 1910 and 1956.[40] Globally, in wool producing countries, pulled wool – in the 1950s – accounted for approximately ten percent of wool production.[41] The proportion of shorn to pulled wool is highly dependent upon whether the sheep were being raised for wool or meat. During the mid-1950s, for example, the World Wool Digest reported that in countries such as the United Kingdom, where sheep were killed primarily for their meat, pulled wool comprised nearly a third of wool production, compared to Ireland and the United States and New Zealand, where sheep were raised for their wool and whose pulled wool comprised one fifth of the former's wool production and one sixth of the latter's.[42]

There is no concrete data surviving to indicate how many wool pullers were active historically in the United States. Statistics on pulled wool and pulleries, in fact are scarce, prior to the twentieth century. In Bishop's 1868 *History of American Manufactures*, only Pittsburgh, Cincinnati, and Detroit had wool pulling establishments identified among their industries: Pittsburgh had five and Cincinnati and Detroit each had one.[43] During the mid-twentieth century, there were approximately forty independent wool pulleries in the U.S., in addition to those operated by such meatpackers as Armour, Swift, Morris and Wilson.[44] A leather industry directory published in 1925 combined listings for wool pullers with hide and fur dealers. Listings for Philadelphia identified five wool pullers, while in Pittsburgh only the P. McGraw Wool Company and Pittsburgh Wool remained in business.[45] By 1997, only two wool pulleries remained in business in the United States: Pittsburgh Wool, in the East, and the Southern Wool and Skin Company in San Antonio, Texas. The demise of wool pulling in the United States may be attributed to two factors: dwindling numbers of domestic sheep and the relocation of the leather industry in countries such as Turkey, India and Pakistan. The most telling figures come

[40] United States Department of Agriculture, *Livestock, Meats, and Wool Market Statistics and Related Data.* Statistical Bulletin. (Washington, DC: Dept. of Agriculture, 1956); World Wool Digest, "Skin Wool Production and Trade, *World Wool Digest* VII (24), 1956: 256.

[41] *World Wool Digest*, 256.

[42] *World Wool Digest*, 256.

[43] J. Leander Bishop, *A History of American Manufactures from 1608 – 1860.* (Philadelphia: E. Young, 1864), 97, 461, 471.

[44] Clemen, *Byproducts*, 56; von Bergen and Mauersberger, *Handbook*, 372.

[45] Hide and Leather, *Hide and Leather's Year Book and Directory, 1925-1926* (Chicago, Illinois: The Jacobsen Publishing Company, 1925).

from U.S. Department of Agriculture data on the domestic inventory of sheep and lambs between 1880 and 1998. According to USDA statistics, the number of sheep in the U.S. peaked at a little more than 50 million head in the years between World War I and the Second World War; by 1 January 1998, there were 7.6 million sheep.[46]

Historically, wool was removed from pelts using one of three methods: it was loosened by sweating, by the application of a depilatory or by liming.[47] Both sweating and liming (although common processing steps in the heavy leather industry, especially in the nineteenth century) were infrequently used by American and English tanners and fellmongers to remove the wool from sheepskins because both processes can damage the skin and lessen its value to tanners.[48] "The choice of methods," reported the World Wool Digest, "depends partly on the relative values of the wool and dewoolled skin, for, roughly speaking, the sweating process is better for the wool and the painting process better for the pelt."[49]

The depilatory method, used by the Pittsburgh Wool Company and most U.S. wool pullers, was summarized in the *American Wool Handbook*:

> The first operation is the washing process which takes place in large, semi cylindrical wooden or metal tubs, and by which yolk, dirt and other foreign matter are removed. The skins are agitated by large wooden paddle wheels and a constant flow of fresh water carries the dirt away. The washing time is approximately half an hour. Then the skins are removed from the tubs and the liquid extracted in large centrifuges or hydro-extractors. The moist skins are then taken to the paint room, where they are placed on flat tables with the wool side down. The flesh side of the skin is then painted with the depilatory solution composed of water, sodium sulfide and lime . . . . Every part of the flesh side of the pelt should be painted to cover all the pores which lead to the roots of the hair. Special care has to be taken to prevent the depilatory from coming into direct contact with the wool, because serious alkali damage may result. The skins are then folded once lengthwise and hooked through the head parts of the pelt on movable racks. These racks are suspended from overhead tracks. On these racks the painted skins remain approximately twenty-four hours to permit the depilatory solution to work through the skin and loosen the roots of the fiber . . . . After the storing time has passed, the wool on

[46] United States Department of Agriculture, Statistical Highlights of U.S. Agriculture 1997/98. Http://www.usda.gov/nass/pubs/stathigh/1998/content1.htm.

[47] Clemen, *Byproducts*, 56; von Bergen and Mauersberger, *Handbook*, 373.

[48] Clemen, *Byproducts*, 56-7.

[49] *World Wool Digest*, 257.

most parts of the skin can, when brought to the pulling room, be easily removed by hand.[50]

The wool is pulled from the pelt in the pulling room. "The puller starts his work by opening the folded fleece and placing it wool side up on a sloping table known as a beam."[51] As the puller removed the wool, it was sorted by placing the different grades in containers that surrounded the beam. Pullers were among the most skilled and highest paid workers in wool pulleries because their task required sorting the wool by the various grades once it was pulled.

Once the wool was removed from the pelt, it was sent to the wool dryer and the denuded skins were preserved by salting or pickling before shipment to tanneries. The grease wool was dried in a loose-wool dryer and was prepared for shipment to scouring plants. "New burlap bags are suspended in holes in the floor, hanging over the floor below," wrote von Bergen and Mauersberger.[52] "The wool swept into this bag is compressed by an automatic plunger. When the bags are filled they are sewed together and dropped to the floor below. They are weighed and stored according to the grades of wool they contain."

The wool generated by the pulling process required additional processing to remove foreign matter and lanolin before it could be made into yarns. Pulled grease wool contained dirt, feces, and vegetable matter, as well the grease – lanolin. Wool is scoured in a series of chemical baths. An initial series of baths in water, soap and a mild alkali removes dirt and degreases the wool. Remaining vegetable matter is removed in a solution that includes sulfuric acid.[53] Many of the large-scale meatpackers with pulleries integrated scouring plants into their operations, while many independent wool pullers relied in third-party scouring plants. Although some woolen mills purchase bulk grease wool – mainly shorn wool – most pulled wool marketed in the United States was scoured prior to reaching textile mills.[54] One advantage pulled wools had over shorn wools was that because of the washing and extraction process that preceded pulling, the wool generally was cleaner by the end of the pulling process than shorn wool.[55]

Unlike pulled wool, sheepskins were more perishable and required more processing in the pullery than simple drying and bagging. Before the denuded skins were shipped to tanners, they were preserved in a pickling process. Pickling involved cleaning the skin, removing remaining wool, and infusing the skin with a chemical preservative to stabilize it during the interim

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[50] von Bergen and Mauersberger, *Handbook*, 373-74.

[51] von Bergen and Mauersberger, *Handbook*, 375.

[52] von Bergen and Mauersberger, *Handbook*, 376.

[53] Clemen, *Byproducts*, 55-56.

[54] Garside, *Wool*, 30.

[55] von Bergen and Mauersberger, *Handbook*, 347.

between the pullery and the tannery. Although some pulleries simply salted or dried the skins before shipping them to tanneries, these methods only were effective for a very limited period and placed the merchantable skins at risk of damage from putrefaction.[56]

Bating was the process used to clean the sheepskins and remove the remaining wool.[57] The skins were placed in vats (or drums, as at the Pittsburgh Wool Company) through which water and chemicals were passed to bate the skins. Several bate process were used by pullers, however, a sulfide – the same used in the depilatory process – commonly was the principal ingredient.[58] Once the bate cycle was complete, the skins were pickled in a solution that included salt and sulfuric acid. Once pickled, the skins were removed and graded and trimmed and packed by the dozen for shipment to tanneries.[59] Although not yet leather, the sheepskins were protected from decomposition.

The Pittsburgh Wool Company and its Predecessors

In the waning weeks of the summer of 1879, John H. Stratman (ca. 1854-1895) left his job as a bookkeeper for one of the Pittsburgh region's largest tanneries and, with money from his brother and father, opened a hide brokerage in a rented warehouse on Liberty Avenue in Pittsburgh's central business district. The meat industry byproducts business Stratman founded spawned several satellite byproducts processing firms and laid the foundation for the establishment of the Pittsburgh Wool Company three decades later. Incorporated in 1912, the Pittsburgh Wool Company is the successor to two preceding firms: John H. Stratman and Company (1879-1903) and W. P. Lange and Company (1903-1912). This chapter explores the history of the Pittsburgh Wool Company and its predecessors.

John H. Stratman and Company

John H. Stratman was the son of immigrant Prussian tailor Gerhard Stratman (ca. 1811-1889). Gerhard Stratman's father and uncle, Henry and Gerhard, respectively, had been in Allegheny City since at least 1846. Henry Stratman died in 1846 and his widow, Catharine, remarried to his brother, Gerhard. The Stratmans likely were part of Allegheny City's first wave

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[56] von Bergen and Mauersberger, *Handbook*, 376.

[57] Charles T. Davis, *The Manufacture of Leather* (Philadelphia, PA: Henry Carey Baird & Co., 1897), 509.

[58] August C. Orthman, *Tanning Processes* (Chicago, Illinois: Hide and Leather Publishing Company, 1945), 42-43.

[59] Orthman, *Tanning*, 45.

of German immigrants who began arriving during the mid-1830s.[60] In October 1846, they purchased a lot on Liberty Street in Allegheny City and the property became John Stratman's father's after Henry Stratman's 1848 death.[61] Gerhard Stratman continued to live at the site for the remainder of his life. The 1850 U.S. Census scheduled six residents of the Liberty Street house: Gerhard and his wife, Catharine, and her four children by Henry Stratman (all native Pennsylvanians): Gerhard (14), Joseph (13), Anna (11), and Philomena (9). The Stratmans lived in Allegheny City's eastern Fourth Ward, a neighborhood with a dense concentration of slaughterhouses, tanneries, and other meat byproducts processors. Among their neighbors were fellow Germans and tanners, Philip Lange, Alexander Holstein, Johann Christian (J.C.) Lappe, and Adolph Groetzinger.

The Stratmans were Catholic and they lived close to St. Mary's Catholic church. Their religious affiliation likely played a part in the business and personal relationships they forged. One of these included Anna Stratman's marriage to Bavarian tanner (and Catholic) Philip Lange. It is unclear why John H. Stratman entered the meat byproducts trade; it may have been based on the influence of his older brother-in-law or it may have been a natural choice given the concentration of tanners and tanneries in the vicinity of the Stratman home. Before founding the John H. Stratman and Company, Stratman worked as a bookkeeper for the Franklin Tannery. Located along Spring Garden Avenue in Allegheny City's Seventh Ward and owned by the partnership of Martin Lappe and C.C. Hax, the Franklin Tannery was one of the Pittsburgh region's largest heavy leather tanneries.[62] Sometime during the summer of 1879, Stratman left his bookkeeping job and rented a warehouse on Liberty Avenue in downtown Pittsburgh. Using $10,000 he borrowed from his brother, Joseph, and his father, Stratman founded a business for selling hides and skins to tanners. John Stratman was "a very worthy energetic man" whose firm – John H. Stratman and Company – was reported as "a new firm just starting" the second week of September 1879.[63]

Within a short period of time, Stratman carried accounts with some of the largest heavy- and light-leather tanneries in the region. By 1884, Stratman had accounts with eight Pittsburgh and Allegheny City tanneries and tanners – C.C. Hax, A. Wiese and Company, Woelfel and Linke, A. & J. Groetzinger, Acme Tanning Company, Edward Flaccus, Alexander Holstein, and Patrick McGraw – butcher Henry Gerwig, and the Cincinnati Hide and Leather Company.[64] The

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[60] Nora Faires, "Ethnicity in Evolution: The German Communities of Pittsburgh and Allegheny City, Pennsylvania, 1845-1881," (Unpub Ph.D. dissertation, University of Pittsburgh, 1981)

[61] Deed Book 679, Allegheny County, 236.

[62] Rotenstein, David S. "Leather Bound: Nineteenth Century Leather Tanners in Allegheny City," *Pittsburgh History* 80 (1), 32-47.

[63] R.G. Dunn and Company, Pennsylvania Volume 10: 137.

[64] John H. Stratman and Company. Ledger 3.

following year, Stratman had accounts with twelve local tanneries. Less than a decade after striking out on his own as a hide broker, Stratman was selling hides and skins to tanners from Portville, New York to Toledo and Cincinnati, Ohio.

Stratman's early success may have led him to expand his profit potential in the byproducts industries by forming partnership with rendering plant proprietors and other byproducts processors. Among Stratman's early acquaintances were Hay Walker Jr., William Walker and Hepburn Walker, the sons of Harbison-Walker Refractories Company founder Hay Walker Sr. In the spring of 1883, just four years after founding the John H. Stratman Company, Stratman, Hay Walker Jr. and William Walker formed a partnership to operate a rendering company. The Walker brothers, before taking the helm of the Harbison-Walker Refractories Company after the death of their father in 1884, made candles and soap from the fat and offal they collected from the many slaughterhouses and butchers in Allegheny City.

In May 1883, Stratman and the Walkers formed a limited partnership: the Monongahela Melting Company.[65] The partnership was capitalized at $4,000, with Stratman contributing $1,100 cash, a $400 frame house and $500 in machinery; Hay Walker Jr. contributed $500 cash and $500 in real estate; and, his brother, William Walker invested $1,000 in cash. The company was formed for "the rendering and selling of fat, bone and animal offal." The Monongahela Melting Company began operating on Hay Walker Jr.'s parcel along the Monongahela River in Braddock. It appears that Stratman may have been operating a rendering facility on Walker's property prior to the partnership. The one story wood frame building – which he apparently constructed at the site – contained "two iron kettles for rendering fat and one crackling press for pressing crackling fat" as well as other "appliances an connections." The Monongahela Melting Company plant was ideally situated during the last two decades of the nineteenth century. The small plant was surrounded by cattle and hog slaughterhouses and one sausage factory.[66]

The Monongahela Melting Company expanded its operations in 1885 by acquiring a second plant farther upstream in McKeesport. By 1895, the company's assets included the original frame rendering plant in Braddock containing:[67]

119 barrels of tallow weighing 40,460 pounds
Tallow press
Two rendering kettles
"Furnace under the kettles"
Platform scale
"Sundry small tools"

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[65] Information in this paragraph, unless otherwise noted, is based on: Allegheny County Partnership Book 3: 33.

[66] Sanborn Map County, 1896, 1901.

[67] Allegheny County Partnership Book 11: 15

And in the McKeesport plant, a one story brick and frame structure, there were:

Two tallow presses
One Jacketed Kettle
One Boiler
Iron Smoke Stack
Condenser
Shafting
Belting
Platform scales
Steam engine
Sundry small tools

Two years after founding the Monongahela Melting Company, Stratman and the Walker brothers formed a second partnership: Walker, Stratman and Company, Ltd. "for the manufacture of fertilizer, bone dust and the boiling of bones and other material for the manufacture of fertilizer."[68] Each of the partners had an equal $5,000 stake in the business. In 1886, just one year after the Pittsburgh and Allegheny Drove Yards Company opened their stockyards on Herr's Island, Walker, Stratman and Company paid $24,262.36 for land at the northern tip of the island.[69] The rendering plant, fertilizer works, and later soap factory, built by the firm had a profound impact on the quality of life for Pittsburgh residents living and traveling within smell of the facility. Odors emanating from the Walker, Stratman works – combined with smells from the neighboring stockyards – came to be known as the "Herr's Island Stench." "That's where you got the odors from because anything that went up there was like a dead animal or dead sheep or something like that. So there was some pretty fancy smells that came out of that place."[70]

In 1888, the same year that the Monongahela Melting Company expanded into McKeesport, Stratman, Hay and William Walker, their brothers Samuel and Hepburn, and M.J. Sullivan reorganized and incorporated the Walker, Stratman and Company for "manufacturing commercial fertilizers and their products" (Allegheny County Charter Book 12: 115). Walker, Stratman and Company by this point had a plant on Spring Garden Avenue and their growing complex on Herr's Island.

At some point during Stratman's intensive integration and growth in the 1880s, he hired his nephew, William P. "W.P." Lange (1862-1946), as a bookkeeper. Lange's name appears in

[68] Allegheny County Partnership Book 4: 174

[69] Allegheny County Deed Book 553: 260

[70] Roy Kumer, personal communication with the author, 2 August 1996).

Stratman's ledgers by 1889 with a 13 July payment of $500 from Stratman to Lange.[71] According to Pittsburgh city directories and census data, Lange's father, Philip, had worked in Allegheny City's tanneries since the 1850s, although it is unclear in which. Philip Lange had married Anna Stratman during the 1850s. Influenced by either his father or uncle, William P. Lange changed from his first job as a grocer in Pittsburgh's Diamond Market to the profitable leather industry.

Lange's hiring may have been facilitated by Stratman's father's death 19 April 1889; his mother, Catharine, had died more than a decade before in 1875. When Gerhard Stratman died, he was holding a note against John for $1,500. Despite John's debt to his father, however, the elder Stratman left the bulk of his $17,532.12 estate to his children; the remainder he left to St. Mary's German Catholic Congregation ($400) and St. Joseph's German Catholic Orphan Asylum ($200).[72]

John H. Stratman and his wife, Margaret, had four children: three daughters and one son. Very few details have survived concerning John H. Stratman beyond the bricolage assembled from public documents and credit reports. He spent less than two decades as a successful meat byproducts entrepreneur before his death 16 January 1895 in his early forties. Stratman left behind an estate with interests in three successful businesses totaling $29,463.05. His children, still minors at the time he died, were left with a $22,000 trust; his nephew W.P. Lange – ("W.P. was more like a bookkeeper"[73]) – took over the John H. Stratman and Company and became a partner in the Monongahela Melting Company, along with William Walker Jr., Hay Walker Jr. and Emil Groetzinger.[74]

W.P. Lange and Company

Lange continued to do business under the old firm name, John H. Stratman and Company, until 1903. In 1898, in step designed to make the hide brokerage more of his own enterprise than that of his uncle, Lange relocated across the Allegheny River to Allegheny City. "W.P. [Lange] ran the place for three years for Mrs. [Stratman] and then he told her that he wanted to go in business for himself," recalled Roy Kumer.[75] In 1903, Lange changed the firm's name to the W.P. Lange and Company and he bought a tannery formerly owned by Alexander Holstein (and briefly by James Callery and Company) at Pine Street and the Pennsylvania Railroad.

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[71] Strathman, Ledger 3a.

[72] Gerhard Stratman Will and Inventory. Allegheny County Register of Wills.

[73] Poy Kumer, personal communication with the author, 16 April, 1999.

[74] (Allegheny County Partnership Book 11: 15.

[75] Roy Kumer, interview with the author, 7 August, 1996.

For W.P. Lange, the first decade of the twentieth century was a decisive one. On Sunday 10 March 1901, his father Philip died leaving an estate worth nearly $15,000 and W.P. as guardian of his nephew, Leo F. Lange. Within two years, he was doing business under his own name and he owned his own plant. When Lange assumed control of Stratman's hide brokerage, he also inherited Stratman's accounts with regional financial institutions. One of the banks Stratman did business with was the Monongahela National Bank. Some time around 1903, Lange asked one of the bank's employees, Harry Kumer, "if he knew a young chap that could be helpful to him in the office."[76] Harry Kumer apparently told Lange about his younger brother, Charles B. Kumer (1877-1958), because in 1903 the younger Kumer went to work for Lange as a bookkeeper. "So that's how my dad got a job," recalled Roy Kumer.

Lange's move to the former Holstein tannery was a well-calculated decision. The move occurred three months after the Pennsylvania Railroad closed the East Liberty stockyards and consolidated its Pittsburgh livestock facilities at the former Pittsburgh and Allegheny Drove Yard Company's stockyards on Herr's Island. By moving into the Pine Street location, Lange strategically placed himself close to the newly enlarged stockyards and slaughterhouse complex (Pittsburgh Union Stockyards and the Pittsburgh Provision Company) and he remained close to the independent slaughterhouses still active along East Street (Butcher's Run) and Spring Garden Avenue. Between 1903 and 1912, Lange used the former Holstein tannery as a hide warehouse and office. At some point he decided to begin pulling wool and he may, briefly, have tanned sheepskins, too. In 1912, Lange, along with Charles Kumer and John Schaefer, incorporated the Pittsburgh Wool Company "for the purpose of buying and selling sheep skins and pelts and parts thereof and making them into useful products and dealing the same."[77]

The Pittsburgh Wool Company, Inc.

W.P. Lange owned a majority (300) of Pittsburgh Wool's 500 shares. Charles Kumer owned 120 and John Schaefer held eighty.[78] Although Lange was the entrepreneur behind the operation and Kumer was an efficient treasurer, John Schaefer may have provided the company with its technical expertise to compete as a fellmonger. "John Schaefer was familiar with the wool business and then he came to work and that's when he formed Pittsburgh Wool Company," explained Roy Kumer (Personal communication. 7 August 1996). Schaefer may have worked

[76] Roy Kumer, interview with the author, 7 August, 1996.

[77] Allegheny County Charter Book 47: 200.

[78] Allegheny County Charter Book 47: 200.

in a wool pullery operated by Charles O. Lappe and W. Hunter Lappe located on Spring Garden.[79]

The Pittsburgh Wool Company occupied the former Holstein tannery (Pine/Pindam Street location) for nearly half a century. By the time Pittsburgh Wool moved into the Holstein tannery, Pittsburgh's leather industry was on the wane. Only two tanneries remained in the former Duquesne Borough area: James Callery and Company and the William Flaccus Oak Leather Company. By the end of the first quarter of the twentieth century, only the Flaccus tannery survived. During the 1920s, Pittsburgh Wool, along with the neighboring P. McGraw Wool Company and the William Flaccus Oak Leather Company, fought a protracted legal battle with the Pennsylvania Railroad Company over a rail siding for tanbark on incorrect plats of the Holstein tannery site and adjacent lots. The outcome resulted in the Railroad forcing the demolition of a part of Pittsburgh Wool Company's plant. The company ceased processing for two weeks and its ability to receive skins via rail was impaired for several years.[80]

To illustrate the company's loss of income, Lange prepared a one-page summary of the damages using production figures and costs during the period (ca. 1923-1929). According to Lange's figures, the company pulled an average of 297,290.5 skins per year (1,783,743 skins for the period 29 July 1923 through 1 August 1929) and each lambskin yielded an average $4.15. The corporate structure is illustrate in Lange's schedule of the company's fixed overhead. Lange's salary during the period was $8,800 per annum, Kumer's was $8,000, and Schaefer made $7,500. Lange's nephew, Leo Lange received a $3,700 annual salary.[81]

In 1930, the Commonwealth of Pennsylvania charged that the Pittsburgh Wool Company owed the state $235.93 in capital stock tax. The Company appealed the ruling and argued that it deserved a manufacturing exemption to the tax. The Commonwealth, however, closely examined the process involved in wool pulling and pickle skin processing and determined "A process, applied to sheep pelts, the only purpose of which is to clean and preserve the skins, and which does not produce a different article . . . and which stops short of tanning, is not manufacturing."[82] The Pittsburgh Wool Company lost its appeal and was required to pay the tax settlement, plus interest ($16.63) and the Attorney General's five percent commission ($12.63).

In its arguments, the Commonwealth presented a narrative of Pittsburgh Wool's processing:

> The defendant purchases raw sheep hides. Shortly after the slaughter these hides go through the following process: (a) They are put in vats and soaked in cold water, after which they are put in revolving cylinders and as they revolve a heavy pressure of water is

[79] Roy Kumer, personal communication with the author, 7 August, 1996.

[80] Pittsburgh Wool Company Files.

[81] Pittsburgh Wool Company Files.

[82] Commonwealth of Pennsylvania vs. Pittsburgh Wool Company, 36 Dauphin County Reports 257 [1933]:257.

> put on them for the purpose of cleansing the wool and softening the pelts; (b) the pelts are then put in revolving machines to force the water from them; (c) they are then painted by hand on the flesh side with a solution of sodium sulphide for the purpose of releasing the wool, which is removed by hand, and graded; (d) the grades of wool are put through a drying cabinet and blown into bins, each bin containing a different grade and then packed in bags; (e) after the wool is removed the pelts are placed in vats in a solution of lime, sodium sulphide and water and agitated to remove any remaining wool; (f) the skins are then placed in vats containing cold water and agitated as a washing process to remove the previous solution; (g) they are next placed in other vats in a solution of orapon and warm water, salt and sulphuric acid and agitated, and agitated for the purpose of killing germs and bacteria; (h) then they are washed in cold water to remove the orapon solution. At this point the skins are whitish in their appearance. (I) then they are put in vats containing water, salt and sulphuric acid and agitated, and (j) and run through fleshing machines to remove superfluous flesh, fiber and tissue. The skins, are known as "pickled skins" and sold as such.[83]

The Commonwealth's judgment against Pittsburgh Wool was entered 31 March 1932. Later that year, Roy Kumer graduated from Carnegie Technical Institute (now Carnegie Mellon University) with an engineering degree and into a lackluster job market due to the Depression. "I got out of Carnegie Tech in 1932, which was a bad year for engineers," Kumer wryly recalled.[84] W.P. Lange's nephew, Leo, had family problems and required a leave of absence that would enable him to move to California. Roy Kumer (b. 1909), Charles Kumer's son, found himself in a position to accept a temporary employment offer from Lange. "Leo Lange had a daughter, she was in the Ziegfeld Follies," Roy Kumer explained.

> Not a main dancer, but in the chorus, I guess you'd call it. At that time that entertainment business was all moving out to Hollywood, so Leo and his wife didn't want the daughter to go out alone, so the mother went with her. And then she was out there for a while and after a year or so Leo wanted to go out and visit with them so he asked W.P. if he could get off for 6 months and that's when I was hired. For 6 months. I knew when I came in that it was a 6 month job.[85]

Leo Lange returned from California and Roy Kumer expected to be let go upon the younger Lange's return to work. Contrary to Kumer's expectations, W.P. Lange extended a permanent

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[83] Commonwealth of Pennsylvania vs. Pittsburgh Wool Company, 36 Dauphin County Reports 257 [1933]: 258.

[84] Roy Kumer, personal communication with the author, 22 January, 1997.

[85] Roy Kumer, personal communication with the author, 2 August, 1996.

job offer to Roy Kumer: "And he told me he liked my work and he liked my interest in the place. If I wanted to stay, he'd be happy to have me stay. I could have fell over. So I was hired for 6 months and I've been here 60 years."[86]

Roy Kumer began his career with the Pittsburgh Wool Company in the Pine/Pindam Street location. Located in the former Holstein tannery, Pittsburgh Wool's first plant was situated in a mixed residential-commercial-industrial community. "You'd come out of the plant and just across the street and there was the beer garden right there. There was people lived around there, you know, but nobody lives there any more. People lived down there. There was a beer garden there, there was a couple of grocery stores around."[87] Pittsburgh Wool's workers ate their lunches at Jake's (the beer garden) while the owners ate lunch together in a kitchen just off the office.

During the 1940s and 1950s, the Kumers gradually replaced the Langes as Pittsburgh Wool's owners and proprietors. W.P. Lange, a lifelong observant Catholic, became involved with a woman named Elizabeth who had been separated from her husband. They did not marry until her first husband died and by that time both were middle-aged.[88] Because W.P. Lange had no direct heirs, the Pittsburgh Wool Company made a seamless transition from one family, the Stratman-Lange family, to the Kumers.

As he aged, W.P. Lange began to spend half the year at his Miami, Florida home and the other half back in Pittsburgh. On 10 November 1946, W.P. Lange died in Miami at age 84. A one page obituary published in the Pittsburgh Post-Gazette beneath the headline "Ex-Pittsburgher Dies in Florida" simply noted that Lange was the "former president of the Pittsburgh Wool Company."[89] Roy Kumer fondly recalled Lange as a firm, compassionate employer and mentor. Kumer explained that it was Lange, not Charles Kumer, who taught him the business. "Oh, he was a wonderful man," Kumer said.

> He had an 8th grade education and just a wonderful man. I mean if you worked for him, if you did something that was right or it turned out well, he let you know about it. But if you made a mistake, you got hell, too, if you deserved it. He was very fair, very knowledgeable. I can remember when I wanted to get married I was scared to death, I was going to as W.P. for a raise so I could get married. [90]

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[86] Roy Kumer, personal communication.

[87] Frank Hayson, personal communication with the author, 23 February, 2000.

[88] Roy Kumer, personal communication with the author, 2 August, 1996.

[89] *Pittsburgh Post-Gazette*, 11 November, 1946.

[90] Roy Kumer, personal communication with the author, 2 August, 1996.

Pittsburgh Wool Company's first location, at the end of Pine/Pindam Street at the Pennsylvania Railroad right-of-way, was a frame four-story structure. The first floor contained the "wet" department where pelts were washed and painted for pulling upstairs. Once the pelts arrived, mainly via the railroad, they were washed in vats and run through brushing machines to complete the cleaning process and prepare the pelts for the paint room and pulling. "Over in the old plant, they didn't have paddle wheels," said Roy Kumer, referring to the newer paddle wheel vats used in the 1230 River Avenue plant:

They put them in vats to soak and they took them out and run them through what we call brushing machines. And that didn't take – that was – you put the pelts on a slab and there was a revolving brush and you pulled the pelt against the revolving brush, which had a stream of water going down on it. But that didn't get the dirt out at the base of the wool fiber. It just flattened the wool down, the brush just flattened the wool down.[91]

The brushing machines, however, created shrinkages at the wool scouring plants and cut into the company's profits. Roy Kumer's solution involved a little bit of invention combined with what can only be described as industrial espionage: he visited the Swift Packing Company wool pulling plant, known as the Harrington plant, in Manhattan. Mentally taking note of how Swift washed their pelts, Kumer recalled, "Two things rolling around like barrels, you know, the skins over there in Harrington's place (or Swift's place), in the tub they just kind of rolled around and around and around and around. This way, by making the tank in the shape of a parabola, when they rolled around, they separated and got apart. That was the difference."[92]

Upon returning to Pittsburgh, Kumer had three parabolic washing vats custom made from cypress at a Pittsburgh facility located on Smallman Street. Roy Kumer's son, Jeff, further explained what set his father's custom-built washing vats apart from other pullers':

> My dad designed his own style of vat, which is a little more difficult than the type that are used, normally built. The normal vat is built like a half circle, like taking a barrel and cutting it through the center and laying it on its side so you have like a dish, but it's a constant radius. The ones that dad designed were more effective for the flow of the pelts when the reel was running and it's actually – a cross-section would look like a parabola. So they're much deeper and it allowed for more motion of the pelts to get the dirt out of it. [93]

The Harrington plant owned by the Swift Packing Company was located in New York City's former "Butchertown." Situated in Manhattan's East Side in what formerly was known as Turtle Bay, the Swift pullery was part of a concentration of meatpacking facilities that had occupied the locality for more than a century. During the 1950s, to facilitate construction of the United

[91] Roy Kumer, personal communication.

[92] Roy Kumer, personal communication.

[93] Roy Kumer, personal communication.

Nations complex, Butchertown was razed and the meatpackers were relocated. Roy Kumer took advantage of the situation by acquiring much of the Swift plant's machinery and pickle skin drums. "So they had to get out and their machinery was all for sale. Practically all the machinery we have over there I bought over in their plant second hand," he recalled. "It all fit in perfectly for us because they went out of business and had all this equipment to sell."[94]

Kumer's acquisition of the Swift equipment took place at a time when Pittsburgh Wool was undergoing considerable change. During the early 1950s, the P. McGraw Wool Company appeared to be declining; their satellite location in the former James Callery tannery was being leased to a company that used it as a warehouse. In 1954, the P. McGraw Wool Company sold the site to the Pittsburgh Wool Company for $150,000, however Pittsburgh Wool did not make the move until 1958.[95] "That was 1958 because my dad died in 1958, I know he was in this building," Roy Kumer recalled.[96]

The move from the former Holstein tannery on Pindam Street to the former Callery tannery on River Avenue marked the beginning of several changes in the ways Pittsburgh Wool processed pelts into wool and pickle skins. Perhaps the most significant change occurred when the company switched from pickling skins in vats similar to the washing vats used to clean newly received pelts to pickling them in the large revolving wooden drums acquired from the Swift plant. Jeff Kumer explained that the switch to the drums greatly increased Pittsburgh Wool's efficiency:

> The only thing that is different (this was the description of when they were in the old building down the street. We have tubs) when they get to the end here, that's called the pickle skin, instead of putting them in those wash tubs with reels on top, what we do is we have revolving drums, so there's a physical change there. Because these wash tubs, we use them for washing the pelts, which is the initial (with the wool on. But they also had in the old building a set of those same vats that had chemicals in them with reels on the top) exactly the same, but each one with a different chemical. Some with just water and they went through the process. And the way you would move the skins from one process to the next, you would lift them out of one and put them in the next. So you were continually transferring down this line by hand. The difference being now, we have these big revolving drums that you put the skins in there and as they revolve, you pump the chemicals into the hub and wash them and the whole process is done in there and they come out finished, instead of doing all this sequential stuff. It's all done in one drum, then

[94] Roy Kumer, personal communication.

[95] Allegheny County Deed Book 3328: 748.

[96] Roy Kumer, personal communication.

> it's dumped out as a batch. So, it not only reduced the labor in the process, but drums doing that are much more efficient and effective. [97]

Another significant change that accompanied the acquisition of the Swift equipment and the relocation from Pindam Street to River Avenue was Pittsburgh Wool's purchase of one of two wool dryers from the former Swift plant. "Harrington [Swift] had two wool dryers and the other one was in better shape than this one," explained Roy Kumer. "A new wool dryer at that time cost about $35,000 if you bought a brand new one. They were manufactured up in New England. And the other one, the better one, they wanted something like $18,000 for it, if I remember correctly. I bought this one for two, $2,000."[98]

When Pittsburgh Wool relocated to the former Callery tannery in 1958, the Langes still retained control of the company. According to Poor's *Register of Directors and Corporation,* Leo F. Lange remained Pittsburgh Wool's president throughout the 1950s and the 1960s, only to be replaced by Roy Kumer in 1968.[99] Pittsburgh Wool Company's labor, like its officers, remained stable throughout the twentieth century. Like much of the Pittsburgh region at-large, Eastern European labor began to replace the preceding German and Irish immigrants who dominated Pittsburgh and Allegheny's industries throughout most of the nineteenth century. By the first years of the twentieth century, many of the laborers who worked in the former Allegheny City's remaining leather processors, stockyards and slaughterhouses were Eastern European immigrants – mainly Croatians – or their descendants.

According to current and former residents of the East Ohio Street (Pennsylvania Route 28) corridor, most of the Croatian community was employed in the livestock, meat and meat byproducts (leather, wool pulling, rendering, soap making) industries. In their somewhat uneven discussion of Pittsburgh soap factories, compilers of the multi-volume, multi-year sociological study of the Pittsburgh region known as the "Pittsburgh Survey" wrote that most of the employees of Walker's Soap factory (Walker, Stratman and Company) on the northern end of Herr's Island were women, "Polish (Eastern European) from the lower North Side" who lived in "unsightly shacks on the hills along the River."[100] Working conditions were comparable to the descriptions of similar facilities painfully presented in Upton Sinclair's classic 1906 study of Chicago's meat industry, *The Jungle.* The smell, which later became indelibly imprinted upon the minds and olfactory nerves of Pittsburgh residents, was powerful even by the first decade of the twentieth century:

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[97] Roy Kumer, personal communication.

[98] Roy Kumer, personal communication.

[99] *Poor's Register of Directors and Executives: United States and Canada* (New York: Standard and Poor's Corporation), 1950:917; 1960:1038; 1968:1297; 1969:1362.

[100] Elizabeth B. Butler, *Women and the Trades* (Pittsburgh: The Pittsburgh Survey: Findings in Six Volumes, ed. By Paul U. Kellogg, 1909), 270.

> The stench from the stockyards and the odor from the soap combine to daunt any but the most hardy seekers for employment. Unventilated and sometimes dirty rooms, a heterogeneous series of industrial processes, an atmosphere of nervous haste, low piece rates, high pressure, such facts as these characterize a plant unique among Pittsburgh factories.[101]

Although precise figures currently are not available for Pittsburgh's North Side (research is in progress), in 1914 the U.S. Immigration Commission reported to the U.S. Senate that labor in the tanning industry was dominated by Eastern European (Polish and Slovak) immigrants and their first generation descendants.[102] In Pennsylvania, at the time of the Immigration Commission report, the Pennsylvania Department of Labor and Industry reported that "foreigners" comprised 43 percent (5,510) of laborers employed in Pennsylvania tanneries.[103] The Pittsburgh Wool Company absorbed many of these Eastern European laborers into its workforce.

Many of Pittsburgh Wool's workers spoke Croatian in the workplace. "They would talk Croatian a lot, you know. Even the bosses couldn't understand them. Sometimes they'd talk, you know, the boss was around and they'd talk Croatian and nobody could understand," recalled former Pittsburgh Wool Company employee Frank Hayson.[104] Recognizing the importance of their Croatian workforce, Pittsburgh Wool purchased an advertisement in an 1947 publication on Croatian history in Allegheny County. "You are one of the finest people and we are proud of your accomplishments," read the copy.[105]

Work at Pittsburgh Wool was hard. The conditions created by working with wet animal skins, chemicals, and poor ventilation were difficult by any measure. "It was hard work in this place," recalled Frank Hayson. "Nothing easy," he added,

> In the wintertime, yeah, the water was freezing cold. You had a bucket of hot water over there and as your hands got so frozen, you'd have dip them in the scalding hot water. If you took your hand and put it in that water without being frozen, you'd scald your hands. And that's the way we did it. Even when we pulled them out of these vats downstairs, that water that's running is ice cold. And you'd be there in the dead of winter, zero weather, pulling them skins out of that water, you'd have a bucket of hot water there and

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[101] Butler, *Women*, 269.

[102] U.S. Congress, *Immigrants in Industries* (S. Doc. 633. 61st Con., 2nd sess.), 1914.

[103] Commonwealth of Pennsylvania. Department of Labor and Industry. *Second Annual Report of the Comm. of Labor and Industry* (Harrisburg, Pennsylvania: Commonwealth of Pennsylvania, 1915), 193.

[104] Frank Hayson, personal communication with the author, 23 February, 2000.

[105] Boniface Soric, *The Life and Work of the Croatian People in Allegheny County, Pennsylvania* (Pittsburgh, Pennsylvania: Croatian Historical Resource Bureau, 1947), 14.

> your hands got so cold, you couldn't grab a skin, you'd dip them in that hot water to get your hands thawed-out, you know what I mean?[106]

The chemicals used to process sheepskins, mainly sodium sulfide, were caustic. If they came in contact with the skin, they would cause painful burns and they were equally difficult to breath. In *The Jungle*, Upton Sinclair described wool pullers' hands: "There were the wool pluckers, whose hands went to pieces . . .; for the pelts of the sheep had to be painted with acid to loosen the wool, and the pluckers had to pull out this wool with their bare hands, till the acid had eaten their fingers off."[107] Although Pittsburgh Wool workers wore protective clothing – gloves, rubber aprons and protective sleeves to prevent the sodium sulfide from coming into contact with their arms – the chemical nonetheless created hardships for the workers, as Hayson recalled:

> You know, that sulfide, you're leaning over this beam and you're breathing that sulfide, you know, and that sulfide, you'll have it in your lungs and I'll tell you right now I got emphysema. I can't say I got it from here, I smoke, too, you breathe that sulfide. If you'd have change in your pocket or keys, white change, it would turn almost black by the end of the day if you're around this sulfide. You know, this sulfide's strong stuff.[108]

Until recently, Pittsburgh Wool Company's employees were members of the Amalgamated Meat Cutters and Butcher Workmen union (an American Federation of Labor [AFL] union). Frank Hayson, Pittsburgh Wool's shop steward for more than three decades, could recall only one strike – over wages – and a generally good relationship with Pittsburgh Wool's owners. "We were on strike one time down here. One time we were out there about eight months," said Hayson.[109]

Work at Pittsburgh Wool was pretty steady, with seasonal layoffs occurring during the summer months when pelt supplies were low. Although Hayson was reluctant to speak about specific grievances against Pittsburgh Wool's owners beyond those involving seniority, he did recall one instance where ownership retaliated against him for his union activities:

> Well, one time there was a layoff here and I was the shop steward and I had seniority and they went and laid me off because they were a little hot at me, you know. They laid me off I don't know how many weeks. I was off about eight or nine weeks and I went up the union hall and we went over the Labor Relation Board and these people and they had to

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[106] Frank Hayson, personal communication with the author, 23 February, 2000.

[107] Upton Sinclair, *The Jungle* (New York: Signet, 1906), 101.

[108] Frank Hayson, personal communication with the author, 23 February, 2000.

[109] Frank Hayson, personal communication.

> put me back to work and reinstate me with full wages for the eight, nine weeks I lost. That was about the worst grievance we had.[110]

Frank Hayson went to work at Pittsburgh Wool in 1949 at age 18. When he began working for the company, there were more than forty employees, including nearly a dozen wool pullers. His four decades with the company began as a laborer in the hide room at the Pindam Street plant. When the company moved into the former Callery tannery, Hayson became a puller. Concomitant to the move and the technological changes it meant for the company, Hayson also noted the number of employees began to diminish.[111]

The last two decades of the twentieth century brought substantial changes to the Pittsburgh Wool Company. Roy Kumer's son, Jeff (b. 1944), became Pittsburgh Wool's corporate secretary in 1968 and eventually he became its vice president, the position he held at the close of the twentieth century. As Roy Kumer aged, his son assumed more responsibility in the company including oversight of daily operations. He witnessed the company's rapid decline, which he attributed to the dramatic drops in the numbers of domestic sheep pelts available, and that forced the company to suspend regular pulling operations during the 1980s. By the close of the twentieth century, Pittsburgh Wool functioned as an exporter of salted lamb pelts to Europe and the Middle East. Before the supplies dried up, however, the company received sheepskins – and beef hides – from local, regional, and out-of-state slaughterhouses and meatpackers. Leo Lange handled the beef hides and once he left the business, Pittsburgh Wool focused solely on sheepskins.

During the 1990s, all of Pittsburgh Wool's pelts came from slaughterhouses in Western Pennsylvania, West Virginia and Virginia.[112] Before the local meat industry collapsed, Pittsburgh Wool obtained many of its pelts from one of the many independent slaughterhouses located within a one-mile radius of their plant. Roy Kumer recalled, "There used to be a lot of packing houses out Spring Garden Avenue and the three of us (Kumer, neighboring tanner Edward Flaccus and hide dealer Frank Sauer) would bid on the hides and pelts and calfskins the first day of every month." Kumer added,

> [The] big one, that I can remember was Oswald and Hess and the three of us used to go out there and have a written bid. That's the way it worked. Whoever was the high one, they got the materials the following month. But we didn't do too much business with Flaccus, I mean as far as selling our hides to him for tanning, for some reason or other. Just like we didn't sell a bunch when pulling, we didn't sell much wool to McGraw's. They used mostly Australian wool. But they did buy a little bit from us, not too much.[113]

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[110] Frank Hayson, personal communication.

[111] Frank Hayson, personal communication.

[112] Jeff Kumer, personal communication with the author, 7 August, 1996.

[113] Jeff Kumer, personal communication.

Although all of the big packers had their own wool pulling plants, some of the smaller ones, such as the George A. Hormel Company and the Rath Packing Company regularly sold pelts to Pittsburgh Wool. "The sheep we got, there used to be a George A. Hormel company out in Austin and then there was Rath packing company in Waterloo, Iowa and there was John Morrell and Company in Ottumwa, Iowa. And every month they would put their expected production up for sale and you bid on those, too," Roy Kumer recalled.[114] They also got pelts from the Pittsburgh Provision Company, a Pennsylvania Railroad Company subsidiary whose packing plant on Herr's Island was operated in tandem with the adjacent stockyards. Since 1912, Armour & Company had owned a substantial portion of Pittsburgh Provision Company stock, making it a profitable local affiliate.[115] "And, of course, Pittsburgh Provision was up there. They had about, as I remember it, about 5,000 sheepskins a month there and we generally always got them," said Roy Kumer.

Pittsburgh Wool also dealt more directly with the major meatpackers in Chicago. When market conditions were unfavorable to pulling in their own plants, packers such as Swift and Armour sold their pelts to third party pullers. Roy Kumer explained: "When you bought the pelts from Armour's, they had their own competitive mills that did exactly the same thing B they were meat packers and then the pelts could go to their mill. When they figured out they couldn't make any money in their mill, then they'd sell their pelts to people like us."[116]

Pittsburgh Wool acquired their pelts from packers such as Armour and the John Morrell Company by bidding against other pullers by telephone, especially after the Second World War. "Everything became telephones. And some packers worked on a straight bid basis," explained Jeff Kumer. "They would offer their monthly production via telephone and you would bid against everyone else and then you would be notified as to who won the bid and it was usually conducted in the period of an hour or two in the morning on a specific date." [117]

As the domestic lamb crop dwindled, the large meatpackers disappeared from Chicago, New York and the other historically significant meatpacking centers (replaced by agribusiness giants such as Con-Agra, IBP Corporation, etc.), and Pittsburgh Wool's suppliers dried up, the company relied more and more upon regional specialty slaughterhouses such as Jamison Farms in Westmoreland County, Pennsylvania and the Rendulic Packing Company of McKeesport to continue its role as an exporter. "There used to be, according to our records, going back thirty or forty years, I would say there were probably in the greater Pittsburgh area seventy-five or eighty small packers. We're down now to maybe six or eight," explained Jeff Kumer. "There's just not

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[114] Roy Kumer, personal communication.

[115] Pittsburgh Joint Stock Yards Company. Minute Book Vol. 3:27. April 24, 1912.

[116] Roy Kumer, personal communication.

[117] Jeff Kumer, personal communication.

much material left. What came out of Chicago and those north central states, they're all out of business. Armour's gone. Wilson's gone. They've disappeared."[118]

[118] Jeff Kumer, personal communication.

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